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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,091	03/23/2004	Darryl A. Bourgoyne	H055010.0035US1	3844

7590 11/27/2007  
Richard D. Fladung  
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Houston, TX 77010

EXAMINER
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DANG, HOANG C

ART UNIT	PAPER NUMBER
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3672

MAIL DATE	DELIVERY MODE
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11/27/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/807,091

Applicant(s)

BOURGOYNE ET AL.

Examiner

Hoang Dang

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 43, 46, 48-54, 56-61, 64-68, 70-78, 88-90, 92-100 and 444 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43, 44, 48-54, 56-61, 64-68, 70-78 and 88 is/are allowed.
- 6) ☐ Claim(s) 46 and 89-98 is/are rejected.
- 7) ☒ Claim(s) 99 and 100 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/29/2007
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/29/2007 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 90 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harrison (US 3,638,721) (see figure 3) or Williams et al (US 5,662,181) (see figure 3) in view of Knox (US 2,609,836) or Watkins (US 3,603,409) or Jones (US 3,443,643).

Either Harrison or Williams et al discloses the invention as claimed except for the valve in fluid communication with the housing opening. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide either Harrison or Williams et al with a valve as claimed in view of the teaching of Knox, Watkins or Jones so that the pressure or/and flow rated can be effectively controlled when desired.

Contrary to applicant's argument, all that is called for by claim 20 is a housing, valve, assembly and sealing member. The "marine riser" is not recited in the claim body as a part of the claimed system. When the system of Harrison or Williams et al is provided with a valve as

taught by Knox or Watkins or Jones, the valve is capable of managing pressure in a marine riser as claimed.

4. Claims 89 and 92-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over the April 1998 Offshore Drilling with Light Weight Fluids Joint Industry Project Presentation (reference II on PTO-1449 filed 5/7/2004) (herein after "Reference II) in view of Harrison (US 3,638,721) or vice versa.

Reference II discloses a method of drilling an offshore well with lightweight fluids. On page C-9, it discloses the use of a rotating head at the top of a riser without telescopic joint. Reference II does not disclose the structure of the rotating head. Harrison '721 discloses a method and apparatus for drilling an offshore well from a floating vessel as that of Reference II. However, Harrison teaches using a rotating head 22 including a housing 42 that rotatably supports a removable seal member 40 and has an opening 60 for returning drilling fluid to the floating vessel through a flexible pipe 35. The rotatable seal member 40 is movable with an inner member 41 to sealably engage a rotatable drill string. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use of a rotating head having a structure as claimed in the Reference II in view of the teaching of Harrison.

Alternatively, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a riser in Harrison and locate the rotating head 22 above the riser as claimed in view of the teaching of Reference II.

With respect to claims 89 and 92, the "radial outward surface" still does not distinguish from the surface on which bearings 44a of Harrison are mounted. This surface is radial and outward relative to the center axis of member 41 or/and inner seal 40. The bearings 44a on the

radial outward surface of the inner member 41 of Harrison are not in contact with the housing 42 as recited. It is noted that claim 89 and 92 would define over Harrison if the "radial outward surface" is changed to --radially outwardly facing surface--.

As for claims 93-98, the flexible pipe 35 of Harrison is considered as "means for moving the drilling fluid from the riser adjacent a first level of the floating structure to a second level of the floating structure above the first level" as claimed. The "first level" is the level where the flexible pipe is connected to the riser" and the "second level" is the level of a container on the floor of the floating structure into which the drilling mud returns.

Contrary to applicant's argument, when Reference II is modified to include a rotating head 22 of Harrison, drilling fluid will flow from an opening in the riser and/or above the surface of the ocean to a second level on the floating structure as recited.

In response to applicant's argument based upon the age of the references, contentions that the reference patents are old are not impressive absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

5. Claim 46, 89, 92 and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reference II in view of Williams et al (US 5,662,181) or Murray et al (US 4,175,186).

Reference II discloses a method of drilling an offshore well with lightweight fluids. On page C-9, it discloses the use of a rotating head at the top of a riser without telescopic joint. Reference II does not disclose the structure of the rotating head. However, either Williams et al '181 (see figure 3) or Murray et al '186 (see figures 1-7) disclose a rotating head including a housing that rotatably supports a removable assembly that includes an inner member, a radially outwardly disposed outer member, a plurality of bearings interposed between the inner and outer members in order to facilitate removably mounting the bearing assembly in the housing while drilling or servicing the well (column 2, lines 36-42 in Williams et al or column 6, lines 1-4 in Murray et al). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use of a rotating head having a structure as claimed in the Reference II in view of the teaching of Williams et al for the advantages pointed out above.

Contrary to applicant's argument, the assembly of Reference II as modified by Williams et al or Murray et al inherently "manages pressure on the drilling fluid" when the seal in their rotating blowout preventer sealingly engages the drill string while the drill string rotates during the course of drilling a borehole.

Again, when Reference II is modified to include a rotating head 22 of Harrison, drilling fluid will flow from an opening in the riser and/or above the surface of the ocean to a second level on the floating structure as recited.

***Allowable Subject Matter***

6. Claims 43, 44, 48-54, 56-61, 64-68, 70-78 and 88 are allowed.
7. Claims 99 and 100 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Dang whose telephone number is 571-272-7028. The examiner can normally be reached on 9:15-5:45 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

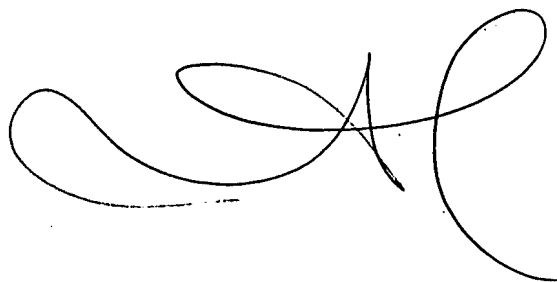
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated

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information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hoang Dang  
Primary Examiner  
Art Unit 3672

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, positioned below the printed name and title.